Claims

1. An isolated peptide having an amino terminus and a carboxy terminus comprising the sequence of SEQ ID NO 3.

2. The isolated peptide of claim 1, which further comprises an arginine at the amino terminus.

3. The isolated peptide of claim 1, which further comprises a phenylalanine at the carboxy terminus.

4. The isolated peptide of claim 1, which further comprises a plurality of fatty acids.

5. The isolated peptide of claim 4, wherein the plurality of fatty acids includes at least one unsaturated fatty acid.

6. The isolated peptide of claim 4, wherein each of the fatty acids of said plurality are selected from the group consisting of stearic acid, arachidic acid, arachadonic acid, and combinations thereof.

7. The isolated peptide of claim 1, which comprises a nonapeptide.

8. The isolated peptide of claim 1, comprising the sequence of SEQ ID NO 2.

9. The isolated peptide of claim 8, wherein X_1 and X_2 of SEQ ID NO 2 are derivatized amino acids.

10. The isolated peptide of claim 8, wherein X_1 comprises phenylalanine and X_2 comprises serine.

11. The isolated peptide of claim 1, which further comprises a serine-O-fatty acid ester.

12. The isolated peptide of claim 1, which comprises the sequence of SEQ ID NO 5.

13. The isolated peptide of claim 12, which further comprises up to three fatty acids, at least one of which is an unsaturated fatty acid, wherein each of the up to three fatty acids are selected from the group consisting of stearic acid, arachidic acid, arachadonic acid, and combinations thereof.

14. The isolated peptide of claim 1, which comprises the sequence of SEQ ID NO 1 wherein R_1, R_2 and R_3 represent fatty acid groups selected from the group consisting of stearic acid, arachidic acid, and arachadonic acid.

15. A method for isolation of a peptide of the sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3 or SEQ ID NO 5 comprising:

dialyzing serum obtained from a mammal with a 6-10 kD cut-off dialysis membrane to produce a dialysate; and

separating from said dialysate a fraction that elutes between 40kD and 50kD.

16. The method of claim 15, wherein the mammal is a horse, a goat or a human.

17. An isolated peptide comprising the sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, or SEQ ID NO 5 capable of being isolated by the method of claim 15.

18. A method for isolation of a peptide of the sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3 or SEQ ID NO 5 comprising:

passing serum obtained from a mammal through a 70kD to 100 kD cut-off ultrafiltration membrane to produce a filtrate;

passing said filtrate through a 10 kD cut-off ultrafiltration membrane to produce a retentate; and

isolating a fraction from said second retentate that has a median molecular weight of between 40 kD and 50 kD.

19. The method of claim 18, wherein the mammal is a horse, goat or a human.

20. An isolated peptide comprising the sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, or SEQ ID NO 5 capable of being isolated by the method of claim 18.

21. A method for the treatment or prevention of a mammalian disease or disorder in a patient comprising administering to said patient an effective amount of the isolated peptide of claim 1.

22. The method of claim 21, wherein the mammalian disease or disorder is a bacterial, viral or parasitic infection, a cancer or other neoplasia, or a combination thereof.

23. The method of claim 21, wherein the patient is a mammal.

24. The method of claim 21, wherein the effective amount is that amount sufficient to produce a serum concentration of greater than 1 μg/ml.

25. A pharmaceutical composition comprising the isolated peptide of claim 1 and a pharmaceutically acceptable carrier.

26. The pharmaceutical composition of claim 25, wherein the pharmaceutically acceptable carrier is selected from the group consisting of water, an oil, an alcohol, glycerol, or a combination thereof.

27. The pharmaceutical composition of claim 25, which does not contain sufficient endotoxin to promote a pyrogenic response.

28. An isolated antibody or antibody fragment that is specifically reactive against the peptide of claim 1.

29. An isolated nucleic acid that encodes the sequence of the peptide of claim 1.

30. An isolated nucleic acid that hybridizes in whole or in part to the nucleic acid of claim 29.